

**Serial No.** : **10/608,354**  
**Filed** : **June 27, 2003**

### **AMENDMENTS TO THE DRAWINGS**

Please delete Figures 1, 4, 5, 7-12, 24, and 27 of the application as filed and insert substitute Figures 1, 4, 5, 7-12, 24, and 27, submitted herewith.

## **REMARKS**

### **Amendments and Status of Claims**

Following entry of the amendments submitted herewith, claims 38, 39, 95, 97, 98, 99, 101, 103, 104, and 109-112 are currently pending in the instant application. Claims 38, 39, 95, 97, 99, 101, and 104 are currently amended. Claims 1-37, 40-94, 96, 100, 102, and 105-108 are canceled without prejudice. Claims 111 and 112 are newly introduced. Support for the currently amended and newly introduced claims is found throughout the specification as filed. For example, support for newly introduced claims is found at page 9, lines 9-29; at page 31, lines 10-17; at page 33, lines 9-22; at page 48 line 14 to page 49 line 9; and in the claims as originally filed. Accordingly, no new matter is introduced by way of these amendments and additions.

## **SPECIFICATION**

Applicants have corrected the amendment to the first paragraph of the specification to reflect changes relative to the previous version of the paragraph. Applicants have further clarified the incorporation by reference statements.

The Examiner asserts that Applicant did not address required nucleotide sequence corrections in the response filed April 17, 2007. Applicants respectfully disagree. In the response filed April 17, 2007, Applicants included corrected versions of Figures 1, 4, 5, 7-12, 24, and 27, which include nucleotide sequence identifiers as required by 37 C.F.R. 1.821(a). Furthermore, the sequences are described in the Brief Description of the Drawings and in the Examples. For the Examiner's convenience, the drawings are resubmitted herewith.

## **SEQUENCE LISTING**

As requested by the examiner, enclosed herewith is a copy of the Sequence Listing in computer readable form, submitted in accordance with 37 C.F.R. § 1.825(b).

## **CLAIM OBJECTIONS**

Claims 38 and 101 are corrected herein to replace 'said nucleic acid' with 'said nucleic acid target'.

Claim 36, 41, 42, and 45 are canceled herein, rendering the objections to these claims moot.

**Serial No.** : **10/608,354**  
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Applicants respectfully request withdrawal of the objections.

### **CLAIM REJECTIONS**

The Examiner rejected claims 36, 38, 39, 41-43, 45-47, 95, 97-99, 101, 103-105, and 107-111 under 35 USC 112, second paragraph, as allegedly indefinite (paragraph 10 of the Office Action mailed July 3, 2007, "the Office Action"). As set forth in the following remarks, Applicants respectfully disagree and request that the rejection be withdrawn.

Claims 36 and 41 were rejected as allegedly vague and indefinite (paragraph 11 of the Office Action). Claim 42 was similarly rejected as allegedly vague and indefinite (paragraph 18 of the Office Action). Applicants respectfully disagree, and submit that one of skill in the art, upon reading the specification, would clearly recognize that the recited steps identify a compound which binds to a nucleic acid target. However, without acquiescing to the Examiner's rejection and solely in an effort to advance prosecution, claims 36 and 41 are canceled herein, rendering the rejection moot. Applicants respectfully submit that the rejection should not be applied to new claims 111 or 112, as these new claims clearly set forth steps for employing mass spectrometric analysis to identify members of a mixture of compounds that bind to a nucleic acid target.

Claim 36 was rejected as vague and indefinite for allegedly being unclear as to how to collect mass spectral data for the fragmentation step (paragraph 12 of the Office Action). Claim 41 was similarly rejected as vague and indefinite for allegedly being unclear as to how to collect mass spectral data for the fragmentation step (paragraph 16 of the Office Action). Applicants respectfully disagree, and submit that one of skill in the art, upon reading the specification, would clearly understand how to collect mass spectral data for the recited fragmentation step. For example, as illustrated at page 18 of the specification, fragmentation during mass spectrometric analysis may be achieved by collisionally activated dispersion or photodissociation. However, without acquiescing to the Examiner's rejection and solely in an effort to advance prosecution, claims 36 and 41 are canceled herein, rendering the rejection moot. Applicants respectfully submit that the rejection should not be applied to new claim 111 or 112, as one of skill in the art would, upon reading the specification, understand how to collect mass spectral data as recited.

**Serial No.** : **10/608,354**  
**Filed** : **June 27, 2003**

Claim 36 was rejected for alleged insufficient antecedent basis for the limitation ‘the existence and degree of competitive binding.’ (paragraph 13 of the Office Action). Claim 41 was also rejected for alleged insufficient antecedent basis for the limitation ‘the existence and degree of competitive binding.’ (paragraph 17 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 36 is canceled herein, rendering the rejection moot. Applicants submit that the rejection should not be applied to new claim 111 or 112, as this limitation is not recited in either new claim.

Claim 39 was rejected as allegedly vague and indefinite (paragraph 14 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 39 is amended herein, to recite a nucleic acid target comprising RNA and one or more deoxynucleotide subunits.

Claim 42 was rejected for alleged insufficient antecedent basis for the limitation “the ion abundance.” (paragraph 19 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 42 is canceled herein, rendering the rejection moot. Applicants submit that the rejection should not be applied to new claim 111 or 112, as the recitation of “ion abundance” has sufficient antecedent basis.

Claim 42 was rejected for alleged insufficient antecedent basis for the limitation “the ion abundance of said first complex.” (paragraph 20 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 42 is canceled herein, rendering the rejection moot. Applicants submit that the rejection should not be applied to new claim 111 or 112, as this limitation is not recited in new claim 111 or 112.

Claim 42 was rejected as allegedly vague and indefinite for being unclear as to how to collect mass spectral data for said first complex as recited in step (e), in view of step (d) (paragraph 21 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 42 is canceled herein, rendering the rejection moot. Applicants submit that the rejection should not be applied to new claim 111 or 112, as neither claim 112 nor 113 recites a step of collecting mass spectral data on the ion abundance of a first complex following mass spectrometry of a first complex and a mixture of compounds.

Claim 42 was rejected for alleged insufficient antecedent basis for the limitation “said determination.” (paragraph 22 of the Office Action). Without acquiescing to the Examiner’s

**Serial No.** : **10/608,354**  
**Filed** : **June 27, 2003**

rejection and solely in an effort to advance prosecution, claim 42 is canceled herein, rendering the rejection moot. Applicants submit that the rejection should not be applied to new claim 111 or 112, as this limitation is not recited in new claim 111 or 112.

Claim 43 was rejected as allegedly indefinite for the phrase “preferentially.” (paragraph 23 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 43 is canceled herein, rendering the rejection moot.

Claim 43 was rejected for alleged insufficient antecedent basis for the limitation “the combinatorial mixture which preferentially bind with said bimolecular target.” (paragraph 24 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 43 is canceled herein, rendering the rejection moot. Applicants submit that the rejection should not be applied to new claim 111 or 112, as this limitation is not recited in new claim 111 or 112.

Claim 42 was rejected as allegedly vague and indefinite for the phrase “said RNA corresponds to a 16S rRNA A-site.” (paragraph 25 of the Office Action). Applicants respectfully point out that claim 46, not claim 42, recites this limitation. Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 46 is canceled herein, rendering the rejection moot. Applicants submit that the rejection should not be applied to new claim 111 or 112, as this limitation is not recited in new claim 111 or 112.

Claim 47 was rejected as allegedly vague and indefinite (paragraph 26 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claim 47 is canceled herein, rendering the rejection moot.

Claim 95 or 99 was rejected as allegedly vague and indefinite (paragraphs 27 and 28 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claims 95 and 99 have been amended to recite “each member of said mixture of compounds is an oligonucleotide.”

Claim 97 or 104 was rejected as allegedly vague and indefinite (paragraphs 27 and 28 of the Office Action). Without acquiescing to the Examiner’s rejection and solely in an effort to advance prosecution, claims 97 and 104 have been amended to recite “each member of said mixture of compounds is a small molecule.”

**Serial No.** : **10/608,354**  
**Filed** : **June 27, 2003**

Claim 105 or 108 was rejected as allegedly vague and indefinite (paragraph 29 of the Office Action). Without acquiescing to the Examiner's rejection and solely in an effort to advance prosecution, claims 105 and 108 are canceled herein, rendering the rejection moot.

### **CONCLUSION**

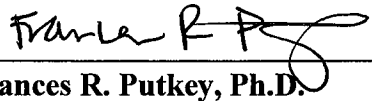
Applicants believe that all outstanding issues in this case have been resolved and that the present claims are in condition for allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is invited to contact the undersigned at the telephone number provided below in order to expedite the resolution of such issues.

### **FEES**

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 50-0252 referencing docket no. MSIBIS-0002USC2.

Respectfully submitted,

Dated: **January 3, 2008**

By:   
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